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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,882	12/28/2000	Luke E. Girard	42390P10236	9419

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EXAMINER

DANG, KHANH NMN

ART UNIT	PAPER NUMBER
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2181

DATE MAILED: 10/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/752,882

Applicant(s)

GIRARD, LUKE E.

Examiner

Khanh Dang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5, 7, 9-12, 15, 16, 18-21 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 7, 9-12, 15, 16, 18-21, 24-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claims 1-3, 5, 7, 9, and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is directed to a structure. However, the essential structural cooperative relationships between elements in the claim have been omitted, such omission amounting to a gap between the elements. See MPEP § 2172.01.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

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351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6, 8-11, 13-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Frank, Jr. et al.

It is first noted that similar claims will be grouped together to avoid repetition in explanation.

As broadly drafted and at best the Examiner can ascertain from the language of the claims, these claims do not define any structure/step that differs from Frank, Jr. et al. With regard to claims 1, 3, and 6, Frank, Jr. et al. discloses a computing device comprising: an operating system (microprocessor 330, 430 executes program code, including operating system code and application program code, and reads or writes data in conjunction with code execution); a pre-operating system software program (in Frank, Jr. et al., a small BIOS program stored in a ROM 238. The BIOS program reads a default area of the disk which stores a boot program, known as a boot record, and stores the program in the memory array. The microprocessor (330, 430) then executes the boot program to load an operating system); an operating system present software program (in Frank, Jr. et al., a disk control program, for example); a protected storage medium configured to enable the pre-operating system software program to pass information to the operating system present software program (in Frank, Jr. et al.,

microprocessor 310, for example, executes a disk control program to initialize the disk drive. A portion of the storage capacity on disks 303 is partitioned to provide a protected area of disk addresses which are known to the disk control program, but are inaccessible to host computer 330). See also at least claim 1. With regard to claim 2, Frank, Jr. et al. further disclose a first interface (324, for example) to provide the pre-operating system software program access to the protected storage medium; and a second interface (320, for example) to provide the operating system present software program access to the protected storage medium. With regard to claim 4, in Frank, Jr. et al., any pre-OS application program executed during initial boot process before the OS is loaded including those associated with various peripheral attached to the host computer) is readable as the so-called "second pre-operating software program." With regard to claims 5, 7, a secure boot of a host computer system is provided from a protected area of a disk. With regard to claim 8, in Frank, Jr. et al., any application that runs while the OS is present is readable as the so-called "second operating system present software program." With regard to claims 9 and 10, the protected area is sufficient to store an image source 304 suitable to recreate a fully functional operating image in memory 340. When computer system 300 is initialized, such as following a power-up sequence, host interface controller 320 asserts a state-control signal 337 which is translated in host interface 334. With regard to claims 11-25, one using the system of Franks, Jr. et al., or the system of Frank, Jr. et al. would have performed the same method steps set forth in claim 11-25.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 12, 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frank et al.

Frank et al., as explained above, discloses the claimed invention including the use of a secure boot program (also known as boot record). However, Frank et al. does not include the use of user authentication information such as password, which can be stored by the BIOS in a protected area of a memory disk, in the boot program during the booting process. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide authentication (password) during a secure boot in Frank et al.; and further store optionally such password in a protected area of a memory disk of Frank et al., since the use of such authentication during booting and storing such authentication afterwards in a protected area of a memory disk (so that security can be enhanced and in addition, in next boot or log-in, a user does not have to retype his/her password again) clearly involves only routine skill in the art. If Applicants choose to challenge the fact that authentication used during booting and optionally stored afterwards is old and well-known, supportive document(s) will be provided upon request.

Response to Arguments

Applicant's arguments filed 8/29/2003 have been fully considered but they are not persuasive.

At the outset, Applicants are reminded that claims subject to examination will be given their broadest reasonable interpretation consistent with the specification. *In re Yamamoto*, 740 F.2d 1569, 1571, 222 USPQ 934, 936 (Fed. Cir. 1984). Applicants are also reminded that claimed subject matter not the specification, is the measure of the invention. Disclosure contained in the specification can not be read into the claims for the purpose of avoiding the prior art. *In re Sporck*, 55 CCPA 743, 386 F.2d, 155 USPQ 687 (1986).

With this in mind, the discussion will focus on how the terms and relationships thereof in the claims are met by the references. Response to any limitations that are not in the claims or any arguments that are irrelevant and/or do not relate to any specific claimed language will not be warranted.

The 112 rejection:

Applicants have not provided the essential structural cooperative relationships between elements in the claims.

The Frank et al. rejection:

It is first noted that under "Remarks", Applicants stated that claims 2-4 "are cancelled." However, only claim 4 was actually cancelled from the set of claims presented under "Amendments to the Claims."

With regard to claim 1 (with claims 2, 3, 5, 9, and 10 stand or fall together), Applicants argued that Frank et al. does not disclose "secure exchange of a protected message between the pre-operating system software program and the operating system present software program." Contrary to Applicants' argument, Frank et al. discloses microprocessor 330, 430 for executing program code, including operating system code and application program code, and for reading or writing data in conjunction with code execution; a pre-operating system software program such as a small BIOS program stored in a ROM 238 for reading a default area of the disk which stores a boot program, known as a boot record, and stores the program in the memory array. The microprocessor (330, 430) then, according to Frank et al., executes the boot program to load an operating system; an operating system present software program such as a disk control program, for example. Frank et al further discloses a protected storage medium configured to enable the pre-operating system software program to pass information to the operating system present software program (in Frank, Jr. et al., microprocessor 310, for example, executes a disk control program to initialize the disk drive. A portion of the storage capacity on disks 303 is partitioned to provide a protected area of disk addresses which are known to the disk control program, but are inaccessible to host computer 330). In Frank et al., the boot program,

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known as boot record, is "secure boot." Thus, it is clear that communication data (message) between the pre-operating system software program and operating system present software program is "protected." With regard to claims 11 and 21 (with claims 13-20 and 22-26 stand or fall together), Applicant argued that Frank et al. does not disclose "secure exchange of the protected message between the pre-operating system software program and the operating system present software program." Contrary to Applicants' argument, In Frank et al., the boot program, known as boot record, is "secure boot." Thus, it is clear that communication data (message) between the pre-operating system software program and operating system present software program is "protected." See also above discussion regarding to claim 1.

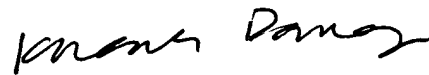
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Khanh Dang at telephone number 703-308-0211.

A handwritten signature in black ink, appearing to read "Khanh Dang", written in a cursive style.

**Khanh Dang
Primary Examiner**